

PEAT HYDROGASIFICATION. S.A. Weil, M. Onischak, D.V. Punwani. Institute of Gas Technology, 3424 S. State St., Chicago, IL 60616, and M. J. Kopstein, U.S. Department of Energy, Washington, D.C. 20545.

The hydrogasification of a Reed Sedge peat from Minnesota was studied in a 200 foot by 1/16 inch laboratory-scale reactor and in a 160 foot by 0.8 inch PDU reactor, at pressures up to 1000 psi and temperatures up to 1500°F. In these cocurrent dilute-phase reactors, the hydrogasification of peat yields up to 40% of the carbon as light hydrocarbon gases within 10 seconds. These hydrocarbons appear to be found in several ways. A kinetic description of the process accounting for the light hydrocarbon gases, the carbon oxides, and the liquid products is presented.